

Remarks

The Office Action mailed December 13, 2005, has been carefully reviewed and the foregoing amendments have been made in consequence thereof.

Claims 1-20 are now pending in this application. Claims 7-20 stand rejected. Claims 1-6 have been withdrawn from consideration.

The rejection of Claims 7-9 under 35 U.S.C. § 102(b) as being anticipated by JP361065435 ('435) is respectfully traversed.

'435 describes a nozzle 4 having a downward-facing flat liquid-spouting hole is arranged above the route a where substrate 1 is transferred toward a rotary chuck 3. The processing solution flows down from nozzle 4 in a curtain of film 13 and substrate 1 is supplied with the processing solution by passing through film 13. Substrate 1 is then loaded onto rotary chuck 3 and a processing solution is sprayed out of a spray nozzle 5 above rotary chuck 3.

Claim 7 recites a nozzle comprising "a body comprising an inlet end, an outlet end, and a fluid passage extending therebetween, said inlet end comprising a first cross-sectional shape, and said outlet end comprising a second cross-sectional shape that is non-rectangular, said second cross-sectional shape selected such that fluid discharged from said second portion has a pre-selected cross-sectional discharge pattern."

'435 does not describe nor suggest a nozzle as recited in Claim 7. For example, '435 does not describe or suggest a nozzle including a body including an inlet end, an outlet end, and a fluid passage extending therebetween, wherein the inlet end includes a first cross-sectional shape, and the outlet end comprising a second cross-sectional shape that is non-rectangular. Rather, '435 describes a nozzle including an outlet end having a rectangular cross section. For at least the reasons set forth above, Claim 7 is submitted to be patentable over '435.

Claims 8 and 9 depend from independent Claim 7. When the recitations of Claims 8 and 9 are considered in combination with the recitations of

Claim 7, Applicants submit that Claims 8 and 9, for at least this reason, are likewise patentable over '435.

For at least the reasons set forth above, Applicants respectfully request the Section 102 rejection of Claims 7-9 be withdrawn.

The rejection of Claims 13-15, 19, and 20 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,564,431 (Miyano) is respectfully traversed.

Miyano describes tw-electroerosion machines with double-floating nozzle assemblies. An inner movable nozzle and an outer movable nozzle are slidably supported by a hollow base member having a first and a second internal fluid passage flooded with a pressurized machining liquid medium in a first and a second inlet flow, respectively. The inner nozzle includes a first hollow body surrounding a traveling electrode and ending with an outlet portion forming a first annular face adjacent the workpiece and defining a principal nozzle orifice for discharging the liquid medium of the first flow about the electrode. The hollow body is movably supported by the base member so as to be thrust outwards thereof to urge the outlet portion towards engagement with the workpiece against pressure in constituted fluid passages created outside the principal nozzle orifice and defined with the workpiece. The outer movable nozzle includes a second hollow body surrounding the first hollow body so to be movable independently thereof and ending with an outlet portion forming a second annular face adjacent the workpiece and defining with the first-mentioned outlet portion an annular, auxiliary nozzle orifice for discharging the liquid medium of the second inlet flow about the liquid medium being discharged through the principal nozzle orifice. The second hollow body is supported by the base member so as to be thrustable outwards thereof to urge the second annular face towards engagement with the workpiece against pressure of the discharged liquid medium flowing between the second annular face and the workpiece.

Claim 13 recites a machining system for machining a component, wherein the machining system comprises "a tool having an exterior shape for use in machining at least a portion of the exterior shape of the component...a component mounting fixture that holds the component during machining...and a coolant flow nozzle comprising a body, a first end, a second end, and a fluid passage extending

therebetween, a first portion of said fluid passage having a first cross-sectional shape, and a second portion of said fluid passage having a second cross-sectional shape, said second cross-sectional shape selected so that fluid discharged from said second portion has a pre-selected cross-sectional discharge pattern.”

Miyano does not describe nor suggest a machining system as recited in Claim 13. For example, Miyano does not describe nor suggest a machining system including a coolant flow nozzle comprising a body, a first end, a second end, and a fluid passage extending therebetween, wherein a first portion of the fluid passage has a first cross-sectional shape, and a second portion of the fluid passage has a second cross-sectional shape. Miyano describes an inner movable nozzle 16 that includes a passage 6c terminating in a principal nozzle orifice 19. Although orifice 19 appears to have a different cross-sectional size than other portions of passage 6c, orifice 19 appears to have the same cross-sectional shape as the remainder of passage 6c. For at least the reasons set forth above, Claim 13 is submitted to be patentable over Miyano.

Claims 14, 15, 19, and 20 depend from independent Claim 13. When the recitations of Claims 14, 15, 19, and 20 are considered in combination with the recitations of Claim 13, Applicants submit that Claims 14, 15, 19, and 20, for at least this reason, are likewise patentable over Miyano.

For at least the reasons set forth above, Applicants respectfully request the Section 102 rejection of Claims 13-15, 19, and 20 be withdrawn.

The rejection of Claims 10-12 under 35 U.S.C. § 103(a) as being unpatentable ‘435 in view of U.S. Patent No. 5,029,759 (Weber) is respectfully traversed.

‘435 is described above. Weber describes a method of forming curvilinear injector spray holes to produce a spray from the nozzle tip of a fuel injector. The method uses electrical discharge machining in combination with an electrode to form a plurality of curvilinear spray holes in the injector nozzle tip which direct the fuel spray from the nozzle. The EDM electrode is preferably formed in the configuration of a constant pitch helix having a radius substantially equal to the radius of curvature of the curvilinear spray hole.

Claims 10-12 depend from independent Claim 7, which is recited above. Neither '435 nor Weber, considered alone or in combination, describe or suggest a nozzle as recited in Claim 7. For example, as described above, '435 does not describe or suggest a nozzle including a body including an inlet end, an outlet end, and a fluid passage extending therebetween, wherein the inlet end includes a first cross-sectional shape, and the outlet end comprising a second cross-sectional shape that is non-rectangular. Weber does not make up for the deficiencies of '435. Because '435 and Weber individually fail to describe or suggest one or more elements of Claim 7, it follows that a combination of '435 and Weber cannot described or suggest such element(s). For at least the reasons set forth above, Claim 7 is submitted to be patentable over '435 in view of Weber.

When the recitations of Claims 10-12 are considered in combination with the recitations of Claim 7, Applicants submit that Claims 10-12, for at least this reason, are likewise patentable over '435 in view of Weber.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 10-12 be withdrawn.

The rejection of Claims 16-18 under 35 U.S.C. § 103(a) as being unpatentable Miyano in view of Weber is respectfully traversed.

Miyano and Weber are described above.

Claims 16-18 depend from independent Claim 13, which is recited above. Neither Miyano nor Weber, considered alone or in combination, describe or suggest a nozzle as recited in Claim 13. For example, as described above, Miyano does not describe nor suggest a machining system including a coolant flow nozzle comprising a body, a first end, a second end, and a fluid passage extending therebetween, wherein a first portion of the fluid passage has a first cross-sectional shape, and a second portion of the fluid passage has a second cross-sectional shape. Weber does not make up for the deficiencies of Miyano. Because Miyano and Weber individually fail to describe or suggest one or more elements of Claim 13, it follows that a combination of Miyano and Weber cannot described or suggest such

element(s). For at least the reasons set forth above, Claim 13 is submitted to be patentable over Miyano in view of Weber.

When the recitations of Claims 16-18 are considered in combination with the recitations of Claim 13, Applicants submit that Claims 16-18, for at least this reason, are likewise patentable over Miyano in view of Weber.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 16-18 be withdrawn.

Moreover, Applicants respectfully submit that the Section 103 rejections of Claims 10-12 and 16-18 are not proper rejections. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. None of '435, Miyano, and Weber, considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicants respectfully submit that it would not be obvious to one skilled in the art to combine '435 with Weber or Miyano with Weber because there is no motivation to combine the references suggested in the cited art itself.

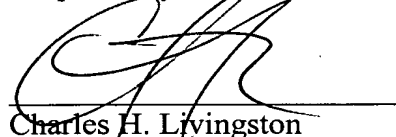
As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. Ex parte Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicants' disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicants' disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate

the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejections are based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejections appear to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants request that the Section 103 rejections of Claims 10-12 and 16-18 be withdrawn.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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